Nonbinding Dispute Resolution Processes in Fisheries Conflicts: Fish Out of Water?

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I. INTRODUCTION

During the 1980s, a new star emerged in seafood markets and restaurants across the world. Driven by advanced technology and overfishing of shallow-dwelling fish, commercial fishers in search of deeper-dwelling, marketable species[1] discovered a relatively small, deep-ocean fish off the coast of New Zealand.[2] Brightly colored in orange and unusually ugly as fish go, this "new" species was the orange roughy.[3] Its taste was marvelous, it was low in cholesterol, and easily adapted to nearly any pallet.[4] Huge numbers were harvested and shipped to markets around the globe.[5] But then something happened that many failed to imagine during the prosperity provided by the orange roughy boom: commercial catches dramatically decreased.[6]

In short, orange roughy abundance decreased because very little was known about their life stages.[7] Fisheries scientists later determined that they are long-lived fish, often living as long as 120–150 years.[8] Orange roughy do

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[1] *See* Christopher C. Joyner, *Compliance and Enforcement in New International Fisheries Law*, 12 TEMP. INT'L & COMP. L.J. 271, 271–72 (1998).

[2] Orange roughy are found worldwide, but are commercially exploited in the North Atlantic and off the coasts of South Africa and Australia. Orange roughy generally are harvested from depths of 750–1200 meters. *See* Malcolm R. Clark & Dianne M. Tracey, *Changes in a Population of Orange Roughy, Hoplostethus atlanticus, with Commercial Exploitation on the Challenger Plateau, New Zealand*, 92 FISHERY BULLETIN 236, 236 (1994); G.E. Fenton et al., *Age Determination of Orange Roughy, Hoplostethus atlanticus (Pisces: Trachichthyidae) Using ^{210}Pb:^{226}Ra Disequilibria*, 109 MARINE BIOLOGY 197, 197 (1991); David C. Smith et al., *Age Determination and Growth of Orange Roughy (Hoplostethus atlanticus): A Comparison of Annulus Counts with Radiometric Ageing*, 52 CANADIAN J. OF FISHERIES & AQUATIC SCI. 391, 392 (1995); AGRICULTURE, FISHERIES & FORESTRY—AUSTRALIA, ROUGHY-ORANGE, *at* http://www.affa.gov.au/docs/fisheries/names/namebook/p75a.html (Feb. 1, 1997) [hereinafter AFFA].

[3] *See* AFFA, *supra* note 2, at http://www.affa.gov.au/docs/fisheries/names/namebook/p75a.html.

[4] *See id.*

[5] *See id.*

[6] *See id.*; Clark & Tracey, *supra* note 2, at 236; Smith et al., *supra* note 2, at 392.

[7] *See* Clark & Tracey, *supra* note 2, at 236; Smith et al., *supra* note 2, at 392; AFFA, *supra* note 2, at http://www.affa.gov.au/docs/fisheries/names/namebook/p75a.html.

[8] *See* Clark & Tracey, *supra* note 2, at 236; Fenton et al., *supra* note 2, at 197; Smith et al., *supra* note 2, at 392; AFFA, *supra* note 2, at http://www.affa.gov.au/docs/

not, however, reach reproductive capacity until about twenty to forty years[9], at which time they are about the perfect size for a dinner plate. It was this unfortunate combination that led to their rapid decline—slow to mature, slow to grow, and thus slow to recover from fishing exploitation.[10] In less than twenty years, orange roughy stocks have been reduced to less than thirty percent of their numbers during the early 1980s.[11]

Although in a considerably more time-compressed manner, the orange roughy anecdote accurately depicts the fate of many of the world's commercial fish species: harvested to or near collapse. Seventy percent of the world's commercial marine fish species are either depleted or fully exploited.[12] Since 1989, world population has increased about ten percent, whereas the total harvest of marine fish has decreased nearly as much.[13] Thus, as the demand for fish increases in the face of decreasing supply, the frequency and number of disputes also are likely to increase. The issues underlying even a single-species fishery dispute are often complex, ranging from legal issues,[14] biological issues,[15] and economics,[16] to politics.[17]

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fisheries/names/namebook/p75a.html.

[9] *See* Fenton et al., *supra* note 2, at 201; Smith et al., *supra* note 2, at 392; AFFA, *supra* note 2, at http://www.affa.gov.au/docs/fisheries/names/namebook/p75a.html.

[10] *See* Fenton et al., *supra* note 2, at 201–02; Clark & Tracey, *supra* note 2, at 250–51; AFFA, *supra* note 2, at http://www.affa.gov.au/docs/fisheries/names/namebook/p75a.html. In other words, commercial fishers (and restaurants, for that matter) selected the size at which orange roughy populations were most vulnerable. Notwithstanding that fishers were blindly harvesting metric tonnes upon metric tonnes of these fish without any knowledge of their total numbers, as a practical matter, harvesting fish before they can reproduce thereby reducing their future populations clearly is not sound practice. This is especially true for a fish that takes decades to reach the reproductive life stage. *See* Fenton et al., *supra* note 2, at 202.

[11] *See* Clark & Tracey, *supra* note 2, at 247; AFFA, *supra* note 2, at http://www.affa.gov.au/docs/fisheries/names/namebook/p75a.html. Currently, fisheries managers believe that they have a handle on orange roughy abundance and are regulating their catches accordingly. *See* Clark & Tracey, *supra* note 2, at 247.

[12] *See* C.J. Chivers, *Empty Waves, Consider the Sea*, WILDLIFE CONSERVATION, Aug. 1998 (discussing how uncontrolled technology has contributed to the near extinction of some fish populations).

[13] *See* Brian J. Rothschild, *How Bountiful Are Ocean Fisheries?*, 2 CONSEQUENCES: THE NATURE AND IMPLICATIONS OF ENVIRONMENTAL CHANGE 15, 16 (1996).

[14] *E.g.*, Fisheries Jurisdiction (F.R.G. v. Ice.), 1974 I.C.J. 175 (July 25). This case arose out of the "Cod Wars" of the 1970s during which Icelandic military vessels fired on British and German fishing fleets that were fishing in an overfished cod fishery on the high seas. *See* Mary Ellen O'Connell, *Environment and Security Concerns for Europe*, Institute of European Studies, Pub. No. 352, at 5, 8–9 (1996).

Because any given fishery may be exploited by fishers representing a variety of countries, nearly all existing or possible fisheries disputes arguably have the potential to be world-wide in scope.

Even within a single country, fisheries disputes can be complex and may ultimately be of international concern. For example, for more than a century Columbia River salmon fisheries disputes in the United States have involved Oregon and Washington state agencies, various federal agencies, several Native American tribes, private interest groups, and of course, commercial and sport fishing organizations.[18] Notwithstanding that significant numbers of United States citizens in the northwest depend on the salmon fisheries for their economic and cultural livelihoods, the piece-meal resolutions of those disputes have been and remain of great concern to those international commercial fishers who fish for Columbia River salmon at sea.[19]

Over the last two decades, the area over which countries assert control of marine fisheries has dramatically increased. Following the less-than altruistic lead of the United States in expanding its coastal fisheries jurisdiction to 200 miles,[20] the 1982 United Nations Convention on the Law of the Sea

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[15] *E.g.*, biodiversity reductions, ecosystem imbalance, compensatory responses, etc. Red flags indicating that a fishery is in trouble include: (1) decline in abundance of fished-for species; (2) contraction of distribution or areas of high density; (3) changes in the age structure or size structure, or both, with fewer older, larger fish and a population dominated by younger, smaller fish; (4) an increase in growth rate, resulting in a decrease in age for a given length; (5) lower age or smaller size at maturity, or both; and (6) possible change in species composition over time. *See* Clark & Tracey, *supra* note 2, at 237–38.

[16] *E.g.*, increased unemployment and government subsidizing. *See* Joyner, *supra* note 1, at 271 n.3 (citing World Wildlife Federation, *The Rise and Fall of Modern Fisheries*, http://www.wwf.org/species/marine/fish32.html, at 1–2) (visited May 26, 1998).

[17] *E.g.*, the Turbot War between Canada and Spain. *See* Joyner, *supra* note 1, at 273; *see infra* notes 99–124 and accompanying text;

[18] *See generally* Timothy Weaver, *Litigation and Negotiation: The History of Salmon in the Columbia River Basin*, 24 ECOLOGY L.Q. 677 (1997) (discussing one hundred years of litigation over Columbia River Fishing rights).

[19] *See id.* Salmon are anadromous by nature; that is, they are spawned in the upper reaches of their home river drainage, eventually migrate downstream to the ocean where they grow and mature to the reproductive stage (two to five years), and then return to their home river to move upstream and spawn, thus beginning the life cycle again. *See id.* at 678 (citing Ramsey v. Kantor, 96 F.3d 434, 437–38 (9th Cir. 1996)).

[20] Fishery Conservation and Management Act of 1976, 16 U.S.C. § 1801(b)(1)(A) (1976), *amended by* Magnuson Fishery Conservation and Management Act, Pub. L. No. 96-561, § 238, 94 Stat. 3299 (1980) (current version at 16 U.S.C. § 1801(b)(1)(A) (1994)) [hereinafter Magnuson Act], *amended by* Magnuson-Stevens Fishery

(UNCLOS) also expanded coastal states' offshore exclusive economic zones (EEZs) to 200 miles.[21] It follows that states whose coastal fisheries are nearly nonexistent[22] and send fishers great distances to satisfy commercial demands will necessarily infringe upon coastal states seeking to conserve fisheries within and beyond their EEZs.[23] Thus, with countries asserting wider jurisdiction, fisheries disputes are likely to be entangled with domestic and international political issues.

Further confounding matters, fisheries administrators and managers typically rely upon the research data provided by fisheries scientists, who in turn gather their data from ecosystems that arguably are in an unpredictable state of flux.[24] When faced with no clear-cut scientific directives, a given

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Conservation and Management Act, Pub. L. No. 104-297, §1 (a), 110 Stat. 3559 (1996) (current version at 16 U.S.C.A § 1801(b)(1)(A) (West 2000) [hereinafter Magnuson-Stevens Act]). The Magnuson Act expanded U.S. jurisdiction from 16 miles to 200 miles off its coast as a "fishery conservation zone." *Id.* The intent of the U.S. was not to preserve fisheries, but rather to prohibit other countries from exploiting an "American natural resource." John M. Deitch et al., *A Historical Perspective Leading Up To and Including the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks*, 13 PACE ENVTL. L. REV. 49, 51(1995) (citing Constance Sathre, *Salmon Interception on the High Seas: A Continuing Controversy Between The United States And Japan*, 16 ENVTL. L. 731, 733–35 (1986)).

[21] United Nations Convention on the Law of the Sea, Dec. 10, 1982, arts. 55–57 [hereinafter UNCLOS]. Thus, the amount of area considered high seas was reduced by about 40 percent, thereby heightening concerns about compliance with a given state's management plans. *See* Joyner, *supra* note 1, at 271 (citing Wayne S. Ball, *The Old Grey Mare: National Enclosure of the Oceans*, 27 OCEAN DEV. & INT'L L. 97, 97–124 (1996)) (discussing the expansion of state jurisdiction into the high seas).

[22] The European Union (EU), China, Japan, South Korea, Thailand, the Ukraine, and Poland. *See* Joyner, *supra* note 1, at 273.

[23] Argentina, Canada, Chile, Iceland, New Zealand, Norway, Peru, and Indonesia are those countries most concerned with maintaining substantial control of their coastal fisheries. *See* Joyner, *supra* note 1, at 272–73. Decimation of traditional fisheries has led many commercial fishers to travel greater distances, focusing their efforts off the coasts of "African, Caribbean, and Pacific states." *See* Joyner, *supra* note 1, at 271.

[24] Most fisheries management decisions are based on calculation of "maximum sustainable yield" (MSY), which ideally estimates the maximum harvest rates without under- or overfishing. *See* Paul A. Driver, *International Fisheries*, *in* THE MARITIME DIMENSION 36 (R.P. Barston & Patricia Birnie eds., 1980). Additionally, year-class strength (the number of offspring that recruit to the fishery) depends upon a complex interaction of weather, timing, number of adults harvested, juveniles harvested as bycatch, forage year-class strength, etc. *See* J.A. Gulland & L.K. Boerema, *Scientific Advice on Catch Levels*, 71 FISHERIES BULLETIN 325, 325–35 (1973) (discussing the problems of implementing MSY); *see also* Robert L. Demory & James T. Golden, *Sampling the Commercial Catch*, FISHERIES TECHNIQUES 421, 429 (Larry A. Nielsen &

state may be less likely to concede control over a fisheries dispute.[25] In addition to legal, biological, and political issues, fisheries disputes also often arise among parties with distinct cultural views, which occasionally widen the communication gap and may even unfetter deep-seated racism.[26]

Finally, because history has demonstrated that most contemporary fisheries disputes are the result of stressed or collapsed fisheries, and because fisheries continue to decline,[27] nonbinding dispute resolution methods are necessarily bound for failure because the result is a zero-sum gain.[28] That is, resolutions to disputes over who gets what piece of an ever-decreasing pie aggravate the situation rather than actually settle it because, by "winning," disputants likely hasten the demise of the fishery. Thus, because fisheries disputes by their very nature are complex and involve multilateral concerns, their satisfactory resolutions are daunting tasks to say the least.

The rapid expansion of dispute resolution processes into both international and U.S. domestic law has naturally led to their use in fisheries disputes, as well as their incorporation into a number of fisheries agreements. Nearly all dispute resolution techniques generally are used as tools in the context of voluntary settlements.[29] Thus, they oftentimes serve as the foundation from which subsequent decisions are made.[30] Clearly, then, the binding nature and enforcement of a resolved dispute will have a significant effect on subsequent disputes over similar or related issues.

David L. Johnson eds., 4th ed. 1992) (discussing the appropriate sampling methods for determining harvest rates); T. Williams, *The Raw Material of Population Dynamics*, FISH POPULATION DYNAMICS 27, 27–45 (J. A. Gulland ed. 1977).

[25] *See* A. Neil Craik, *Recalcitrant Reality And Chosen Ideals: The Public Function Of Dispute Settlement in International Environmental Law*, 10 GEO. INT'L ENVTL. L. REV. 551, 571–72 (1998).

[26] See *infra* notes 125–49 and accompanying text for a discussion of racism in U.S. fisheries disputes involving Native Americans.

[27] *See* Dr. W. M. von Zharen, *Ocean Ecosystem Stewardship*, 23 WM. & MARY ENVTL. L. & POL'Y REV. 1, 12–18 (1998).

[28] That is, one country's or party's interest is necessarily opposed to the other's and thus when one gains, the other loses. *See* Edith Brown Weiss, *International Environmental Law: Contemporary Issues and the Emergence of a New World Order*, 81 GEO. L.J. 675, 709 (1993).

[29] *See* Gail Bingham, *ADR Procedures: Variations on the Negotiation Theme, in* APPLYING ADR TECHNIQUES TO ENVIRONMENTAL MATTERS, at 265, 267 (ALI-ABA Course of Study Materials No. Feb. 11, 1998).

[30] *See id.* In U.S. cases involving CERCLA Superfund allocation disputes, a neutral party may provide an allocation report with non-binding recommendations. This report may then become the basis for subsequent negotiations among the parties. *See id.*

Dispute settlement mechanisms are commonly portrayed as existing along a spectrum of party control and enforcement.[31] Formal adjudication represents the end of the spectrum where parties have little control, but enforcement is maximized because the outcomes generally are binding on the parties and on nonparties as legal precedence. Negotiation represents the opposite end of the spectrum where parties have maximum control, but relinquish their ability to effectively enforce agreements because the outcomes generally are not binding or are only binding on the actual parties. The most common dispute resolution processes used in fisheries disputes are arbitration, mediation, conciliation, and negotiation.[32] Arbitration, conciliation, and mediation occur along the spectrum between adjudication and negotiation.[33] Arbitration is described as "a private, voluntary, adjudicative, and usually binding process established by mutual agreement of the disputants to resolve existing or future disputes."[34] Conciliation also involves a neutral third party, except that a conciliator or conciliation commission, chosen by the disputants, typically examines the dispute and makes a nonbinding recommendation as to the appropriate settlement.[35] Mediation essentially is an augmentation of negotiation in which a neutral third party actively participates, though informally, to the extent that the third party facilitates the transmittal of proposals and communications between the disputants.[36] Mediated settlements typically are only binding on the disputants to the extent that the settlement agreement may be reviewed on the basis of contract or treaty law.

Although multilateral negotiation has been the typical route taken for fisheries dispute resolution in the past, recent developments suggest an increasing willingness to submit environmental disputes to more formal, legalistic processes.[37] The recent trend towards binding dispute settlement indicates that states are increasingly concerned with enforcement and

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[31] *See* Craik, *supra* note 25, at 553.

[32] In fact, these are the very dispute resolution processes which are specifically embodied within UNCLOS. *See* UNCLOS, *supra* note 21, at pt. XV.

[33] *See* Craik, *supra* note 25, at 553.

[34] DICTIONARY OF CONFLICT RESOLUTION 28 (1999).

[35] *See id.* at 105–06 (This is in contrast to the conciliation process used in the United States whereby a conciliator generally does not make recommendations). *See id.*

[36] *See* J. G. MERRILLS, INTERNATIONAL DISPUTE SETTLEMENT 27 (Cambridge Univ. Press 1991).

[37] *See* Craik, *supra* note 25, at 552.

compliance. However, the number of environmental treaties containing compulsory and binding dispute settlement regimes remains very low.[38]

Accordingly, the purpose of this Note is to examine how various entities have incorporated the use of dispute resolution processes into the resolution of fisheries disputes, as well as to explore the effectiveness of dispute resolution processes in fisheries disputes. It maintains that dispute resolution processes are not particularly effective in fisheries disputes without some form of binding aspect that facilitates enforcement and compliance. First, the disputants in fisheries disputes typically maintain significant politically- or racially-entrenched positions, which amplify the need for one party to win at the expense of the other. Thus, without a binding, enforceable decision, the potential exists that a disputant that dislikes a particular outcome and politically or racially disapproves of his or her counterpart may passionately defy that outcome. Second, many fisheries management decisions are based on scientifically imprecise and oftentimes conflicting information. Reliance by disputants on information later proved to be inadequate not only inevitably weakens agreements based upon such information, but also strengthens scientifically-opposed positions—"my science is correct, yours is wrong."[39] Third, disputes will increasingly arise over a fishery that is either at or beyond the cusp of collapsing and thus nonbinding settlement of the dispute may be a zero-sum gain. Recent trends in international fisheries law suggest movement away from traditional negotiation and nonbinding dispute resolution processes toward those that are binding. Finally, international community pressure plays a critical role in the enforcement of fisheries dispute resolutions.

To that end, Part II will examine the current status of international fisheries law and the trend toward binding agreements, specifically addressing UNCLOS, the Food and Agriculture Organization's Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (FAO Compliance Agreement), and the subsequent 1995 U.N. Agreement for the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (Straddling Fish Stocks Agreement). Finally, Part III will examine the three characteristics of fisheries disputes that potentially preclude effective use of nonbinding dispute resolution processes: political and racial issues, scientific imprecision, and zero-sum gain.

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[38] *See id.* at 553.

[39] An example of this mentality lead to the *Southern Bluefin Tuna* cases (N.Z. v. Japan; Austl. v. Japan), 38 I.L.M. 1624 (1999). *See infra* notes 145–60 and accompanying text.

II. THE STATUS OF INTERNATIONAL FISHERIES LAW: A TREND TOWARD BINDING DISPUTE SETTLEMENT MECHANISMS AND THE SIGNIFICANCE OF COMMUNITY PRESSURE

The Charter of the United Nations requires participating states to settle their disputes in a peaceful manner.[40] Neither reference to nor action in accordance with legal procedures are required when settling disputes between states.[41] Furthermore, the Charter does not actually require states to settle their disputes.[42] To that end, the Charter includes traditional settlement processes such as adjudication and arbitration, as well as negotiation, mediation, inquiry, and conciliation.[43] Most states have elected to settle their environmental disputes via dispute resolution processes such as negotiation, mediation, and conciliation rather than relinquish the control that traditional legal processes typically offer.[44]

Accordingly, over the last two decades, third-party involvement in international dispute settlements has significantly increased.[45] Over that same period, however, an increasing number of environmental cases have been submitted to the International Court of Justice (ICJ) for adjudication.[46] This phenomenon likely can be attributed to "community pressure";[47] that is, settlement of international environmental disputes concerns the broader interests of the greater community, as well as the narrower interests of the specific states involved in a dispute and thus disputing states can no longer isolate their environmental dispute from outside interests.[48]

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[40] *See* U.N. CHARTER art. 2(3); Craik, *supra* note 25, at 551.

[41] *See* IAN BROWNLIE, PRINCIPLES OF PUBLIC INTERNATIONAL LAW 708 (4th ed. 1990).

[42] *See* Craik, *supra* note 25, at 551.

[43] *See* U.N. CHARTER art. 33.

[44] *See* Richard B. Bilder, *The Settlement of Disputes in the Field of the International Law of the Environment*, 144 RECUEIL DES COURS 139, 224–26 (1975).

[45] *See* Jonathan I. Charney, *The Implications of Expanding International Dispute Settlement Systems: The 1982 Convention on the Law of the Sea*, 90 AM. J. INT'L L. 69, 69 (1996).

[46] *See* Malgosia Fitzmaurice, *Environmental Protection and the ICJ*, *in* FIFTY YEARS OF THE INTERNATIONAL COURT OF JUSTICE 295–315 (Vaughan Lowe & Malgosia Fitzmaurice eds., 1996).

[47] Alan E. Boyle, *Saving the World: Implementation and Enforcement of International Environmental Law Through International Institutions*, 3 J. ENVTL. L. 229, 230 (1991).

[48] *See* Craik, *supra* note 25, at 553.

With an emphasis on the need for international community pressure, this section examines the UNCLOS dispute settlement regime, FAO Compliance Agreement, and the Straddling Fish Stocks Agreement and how these agreements suggest a trend toward binding dispute settlement mechanisms rather than traditional multilateral negotiations.

A. *UNCLOS Dispute Settlement Regime*

UNCLOS provides for a variety of dispute settlement avenues. Part XV establishes the system for settling disputes regarding its interpretation and application, including negotiation and conciliation.[49] If the parties are unable to resolve their dispute, a secondary, compulsory binding dispute settlement system kicks in.[50] At the time of signing, ratifying, or acceding to UNCLOS, the compulsory system allows states to choose one or more of four dispute settlement fora:[51] (1) the International Tribunal for the Law of the Sea (ITLOS), (2) the ICJ, (3) arbitration, and (4) special arbitration for fisheries, marine environment, marine scientific research, and navigation disputes.[52] In the event that disputing states have not chosen any of the same settlement fora, the dispute must be settled via compulsory arbitration.[53] Because all of the choices are either judge- or arbitrator-decided methods, the decisions are characterized as binding on the parties.[54]

On the other hand, agreements made through negotiation, mediation, or conciliation prior to the compulsory dispute settlement system are not necessarily binding on the states.[55] Herein lies the problem with traditional dispute resolution processes under the auspices of UNCLOS: Is community pressure enough to ensure enforcement and compliance of traditionally non-binding dispute resolution decisions within the fisheries dispute context? Though UNCLOS is still relatively new, indications are that community

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[49] *See* UNCLOS, *supra* note 21, at arts. 279–99, Annexes V–VIII.

[50] *See* Charney, *supra* note 45, at 70.

[51] *See id.* A list of experts must be maintained for disputes utilizing special arbitration for fisheries, marine environment, marine scientific research, and navigation. *See id.* at 70 n.10; *see also* UNCLOS, *supra* note 21, at Annex VIII, art. 2.

[52] *See* Charney, *supra* note 45, at n.10.

[53] *See id.* at 70.

[54] *See* UNCLOS, *supra* note 21, at art. 296; Charney, *supra* note 45, at 70. Whether or not such processes actually are binding and enforceable is not within the scope of this Note. This Author is of the opinion that, absent substantial international community pressure, they are only binding in theory and are therefore unenforceable. *See infra* notes 53–65 and accompanying text.

[55] *See* Craik, *supra* note 25, at 554.

pressure may not be enough to maximize compliance in the fisheries dispute context.[56]

The statutes of both the ICJ and ITLOS clearly stipulate that any decision issued by these bodies is final and binding on the parties.[57] However, whereas the U.N. Security Council can take measures, including force, to ensure that states comply with decisions of the ICJ,[58] no comparable enforcement power attaches to decisions of the ITLOS.[59] Moreover, the U.N. Security Council has never actually applied the use of force provision,[60] despite failures by states to fulfill obligations imposed by the ICJ. Thus, "[c]ommunity pressure remains in practice the only real sanction for enforcing compliance with [arbitral] awards, . . . with judgments of the [ICJ],"[61] and for that matter, all nonbinding dispute settlement processes.[62]

There is some evidence of reliance on community pressure for compliance and enforcement within the UNCLOS statutes. The UNCLOS conciliation process requires the publication of the findings and recommendations of the conciliation commission.[63] Hence, the UNCLOS drafters likely recognized that, because international fisheries disputes have underlying public concerns that outweigh private or domestic issues, it was necessary to provide for publication of a conciliator's findings despite the idea that confidentiality is typically viewed by states as an attractive attribute of some dispute resolution processes.[64]

What has become apparent then, is that the only truly binding mechanism in the UNCLOS dispute settlement regime is public or international community pressure.[65] In international law, even allegedly binding dispute settlement mechanisms such as arbitration may be ignored when a state disagrees with the decision. To illustrate, in the Beagle Channel dispute

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[56] *See infra* notes 94–98 and accompanying text.

[57] *See* Statute of the International Court of Justice, arts. 59 & 60, 1989 I.C.J. Acts & Docs. 59, 83; UNCLOS, *supra* note 21, at Annex VI, art. 33.

[58] *See* U.N. CHARTER art. 94, para. 2. The UN Security Council has never actually applied this provision, despite failures by states to fulfill obligations imposed by the ICJ. *See* D.W. Bowett, *Contemporary Developments in Legal Techniques in the Settlement of Disputes*, 180 RECUEIL DES COURS 173, 177 (1983).

[59] Craik, *supra* note 25, at 554.

[60] *See id.* (citing Bowett, *supra* note 58, at 212).

[61] Boyle, *supra* note 47, at 230.

[62] *See* Craik, *supra* note 25, at 555.

[63] *See* UNCLOS, *supra* note 21, at Annex V, art. 7.

[64] *See* Craik, *supra* note 25, at 556–57.

[65] *See id.* at 557.

between Chile and Argentina,[66] Argentina challenged the validity of the arbitrators' decision on dubious grounds and, despite the implausibility of Argentina's repudiation, the decision was never enforced.[67] In that dispute, international community interest apparently was not substantial enough, perhaps because the dispute was focused on the boundary islands between Chile and Argentina.[68] Thus, even though it was not decided under UNCLOS, Argentina likely did not have to consider international community pressure in deciding whether or not to comply. Under UNCLOS, there might be strong domestic and international pressures to sign a fishery agreement regardless of the costs of compliance, but when the time for compliance comes, narrower national interests may prevail.[69]

B. *Flag States v. Coastal States: The FAO Compliance Agreement*

In spite of UNCLOS's intention to thoroughly address international fisheries dispute settlement, a glaring weakness arose by the early 1990s. States were becoming acutely concerned over the lack of compliance with international law regulating high seas fishing.[70] Because UNCLOS extended offshore EEZs to 200 miles,[71] high seas fishing areas were reduced by forty percent.[72] Simultaneous declines in the world's fisheries and increases in commercial fishing technologies escalated tensions over compliance with international fishing rules to crisis levels.[73] On the one hand, certain distant

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[66] *See* Beagle Channel Arbitration, 52 I.L.R. 93 (Brit. Ct. of Arb. 1977).

[67] *See* MERRILLS, *supra* note 36, at 100; *see also* Declaration of Nullity, *in* Note Delivered by the Ministry of Foreign Affairs of Argentina top the Ambassador of Chile on Jan. 25, 1978, *reprinted in* RELACIONES CHILENO-ARGENTINAS: LA CONTROVERSIA DEL CANAL BEAGLE, ALGUNOS DOCUMENTOS INFORMATIVOS 133, 139 (1978), *translated in* 17 I.L.M. 739 (1978).

[68] *See* MERRILLS, *supra* note 36, at 100. The dispute was eventually settled via mediation during which Chile used the arbitration decision as leverage against Argentina. Argentina thus accepted the line equidistant between the two countries. *See* Sang-Myon Rhee, *Sea Boundary Delimitation Between States Before World War II*, 76 AM. J. INT'L L. 555, n.92 (1982).

[69] *See* Joyner, *supra* note 1, at 276–77.

[70] *See id.* at 271.

[71] *See* UNCLOS, *supra* note 21, at arts. 55–57.

[72] *See* Ball, *supra* note 21, at 98.

[73] *See generally* Evelyne Meltzer, *Global Overview of Straddling and Highly Migratory Fish Stocks: The Nonsustainable Nature of High Seas Fisheries*, 25 OCEAN DEV. & INT'L L. 255 (1994); Edward L. Miles & William T. Burke, *Pressures on the United Nations Convention on the Law of the Sea of 1982 Arising From New Fisheries Conflicts: The Problem of Straddling Stocks*, 20 OCEAN DEV. & INT'L L. 343–50 (1989).

water fishing nations (DWFNs) advocated the creation of narrow offshore fishing zones with fewer restrictions.[74] On the other hand, most coastal states that had viable fisheries were focused on conservation of those fisheries within their respective EEZs, as well as broader conservation zones offshore—the high seas.[75]

International law has long recognized the right to fish on the high seas.[76] DWFNs are required, however, to comply with local fishing regulations.[77] Because UNCLOS bestows sovereign rights and management authority to coastal states over the living resources within their EEZs, and because most living marine resources occur within EEZs, coastal states are saddled with the obligation to conserve nearly all the world's living marine resources.[78] UNCLOS also ensures the right of states to engage in fishing on the high seas as long as DWFNs comply with treaty obligations, and the fundamental obligation to cooperate in the conservation and management of high seas resources.[79] Moreover, flagged vessels typically are privately-owned and are motivated by personal interests, not necessarily those of the state their flag represents. Thus, because the interests of flagged vessels and their respective states are not likely to be the same or even similar, serious confrontations are inevitable.

Confounding the inevitability of disputes, fishing vessels that travel out of their respective coastal zones to fish the high seas and within other states' EEZs (coastal states) remain under the jurisdiction of their home state (flag states).[80] Thus, the onus is on the flag states of DWFNs to regulate flagged vessels from engaging in activities that contravene the effectiveness of coastal states to conserve and manage their respective fisheries.[81] During the early 1990s, international concern regarding reflagging by private fishing

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[74] *See* Miles & Burke, *supra* note 73, at 343–50.

[75] *See* Joyner, *supra* note 1, at 272.

[76] *See* DOUGLAS JOHNSTON, THE INTERNATIONAL LAW OF FISHERIES 156–66 (1965).

[77] *See id.*

[78] *See* Joyner, *supra* note 1, at 277–78.

[79] *See id.* at 283–95.

[80] *See* Food and Agriculture Organization Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 33 I.L.M. 969 (1994) [hereinafter FAO Compliance Agreement]. For a discussion on the responsibilities of the flag states and the coastal states, see Joyner, *supra* note 1, at 283–92. In a nutshell, flag and coastal states must exchange information regarding regulations, number of vessels, etc. in order to avoid disputes. *See id.*

[81] *See* Joyner, *supra* note 1, at 285.

vessels sharply increased.[82] Thus, in 1992, the United Nations Conference on Environment and Development (UNCED) promulgated Agenda 21, which specifically addressed the reflagging issue.[83] The following year, the Food and Agriculture Organization (FAO) adopted its FAO Compliance Agreement.[84]

The FAO Compliance Agreement continues to rely on flag state responsibility as the major mechanism for compliance by fishing vessels on the high seas.[85] Flag states are responsible for licensing its flagged fishing vessels[86] and maintaining records of authorized vessels.[87] Coastal states are authorized to investigate fishing vessels to determine whether violations have occurred.[88] Thus, the record-keeping regime under the FAO Compliance Agreement was intended to facilitate control and supervision of vessels by both flag and coastal states.[89]

As the world's fisheries continued to dwindle, both coastal and flag states began to recognize the importance of compliance. Significantly, the success of the FAO Compliance Agreement turns on how much weight flag states give their domestic interests when balancing them against international interests. This in turn depends on the enforceability of the FAO Compliance Agreement with respect to the particular dispute mechanisms available.[90] Again, international community pressure appears to be the best means of enforcement in this situation; without it, experience reveals that short-sighted private and domestic concerns generally win out when push comes to shove.[91]

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[82] *See id.* at 282–83. Reflagging is when vessel operators change their ship's flags to those of non-parties to regional fishing agreements or treaties in order to circumvent complying with the conservation or management regimes encapsulated within the agreements or treaties. *See id.* at n.57.

[83] *See* Chs. 17 & 17.52, U.N. Doc. A/Conf.151/26 (1992).

[84] *See* FAO Compliance Agreement, *supra* note 80.

[85] *See id.* at art. III.

[86] *See id.*

[87] *See id.* at art. IV.

[88] *See id.* at art. V.

[89] *See id.* at art. IV.

[90] *See* Phillipe Sands, *Compliance with International Environmental Obligations: Existing International Legal Arrangements*, *in* IMPROVING COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL LAW 48, 52–56 (James Cameron et al. eds., 1996).

[91] *See infra* notes 93–119 and accompanying text.

C. *1995 U.N. Agreement for the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*

Efforts to ratify a more comprehensive agreement delineating the responsibilities of flag and coastal states have not yet succeeded.[92] Thus, states, especially flag states, likely are reluctant to concede jurisdiction over their fishing vessels. Without authoritative enforcement mechanisms, compliance can only be ensured through political pressure.[93] The lack of specific provisions delineating the rights and duties of flag and coastal states inhibited enforcement and implementation of conservation measures, thus increasing tension among the two factions.[94] The Straddling Fish Stocks Agreement specifically addressed these issues:[95]

> Conservation and management measures established for the high seas and those adopted for areas under national jurisdiction shall be compatible in order to ensure conservation and management of the straddling fish stocks . . . in their entirety. To this end, coastal states and states fishing on the high seas have a duty to cooperate for the purpose of achieving compatible measures in respect of such stocks.[96]

The Straddling Fish Stocks Agreement further provides that "any of the states concerned" may resort to compulsory, binding dispute settlement.[97]

Although the Straddling Fish Stocks Agreement has yet to be ratified by the requisite number of states, the upshot is that the participating states recognized that compliance and enforcement of fisheries regulations can only

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[92] As of May 1998, only ten states had even accepted the agreement. *See* Joyner, *supra* note 1, at n.63 (citing http://www.fao.org/WAICENT/FAOINFO/FISHERY/agreem/complian/tab.1.htm (visited on May 22, 1998).

[93] *See* Joyner, *supra* note 1, at 287.

[94] *See id.* at 289.

[95] *See Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 Dec. 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, U.N. Conference on Straddling Fish Stocks & Highly Migratory Fish Stocks, 6th Sess., U.N. Doc. A/Conf.164/37 (1995) [hereinafter *Straddling Fish Stocks Agreement*]. Straddling fish stocks are populations of fish that occur or move between an EEZ of at least one coastal state and at least one adjacent high-seas zone. Marian Nash Leigh, *Contemporary Practice of the United States Relating to International Law*, 90 A.J.I.L. 270, 271 (1996). Highly migratory fish stocks are populations that migrate through both the high seas and coastal states' EEZs. *Id.*

[96] *Straddling Fish Stocks Agreement*, *supra* note 95, at art. 7.

[97] *Id.*

be achieved via dispute settlement mechanisms that are binding in nature. In addition, one may go so far as to suggest that the Straddling Fish Stocks Agreement has become customary international law. Rather than depend upon flag states to balance domestic against international concerns, investigations and judicial proceedings under the Straddling Fish Stocks Agreement require sanctions that are "adequate in severity to be effective in securing compliance and to discourage violations wherever they occur and shall deprive offenders of the benefits accruing from their illegal activities."[98] Thus, the nonbinding, less formalistic dispute resolution processes such as mediation and conciliation would otherwise require substantial political pressure in order to have any enforcement capabilities, thereby rendering them unsuitable in the fisheries dispute context.

III. CHARACTERISTICS OF FISHERIES DISPUTES THAT PREVENT EFFECTIVE USE OF NONBINDING DISPUTE RESOLUTION PROCESSES

To illustrate the issues that result in the unsuitability of nonbinding dispute resolution processes in the fisheries disputes context, it is useful to examine recent, though long-time-coming fisheries disputes. Accordingly, this section examines the dispute between Canada and Spain and Native American fisheries disputes within the United States with a view toward elucidating the inflexible political and racial positioning that renders most dispute resolution techniques ineffective. This section will further briefly examine the scientific imprecision and zero-sum gain characteristics that also affect the suitability of nonbinding dispute resolution techniques in fisheries disputes.

A. *Politically- and Racially-Entrenched Disputes*

1. *The Turbot War: Canada v. Spain*

At one time Canada enjoyed plentiful coastal fisheries. When John Cabot first arrived in Canadian waters in 1497, his crew could hardly row through the masses of cod schools.[99] From the early 1980s through 1994, however, cod harvests crashed to all-time lows, forcing the Canadian government to impose a seven-year moratorium on cod fishing, and also banning cod fishing off Newfoundland's Grand Banks.[100] The demise of the cod fishery

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[98] *Id.* at art. 19, para. 2.

[99] *See* Deitch et al., *supra* note 20, at 67–68.

[100] *See id.* at 68–69.

eventually left some 30,000 fishers and plant workers unemployed.[101] In Newfoundland alone, the demise of the cod fishery was responsible for eighty percent unemployment, forcing the government to subsidize thousands of households and to finance programs to encourage fishers to seek alternative livelihoods.[102]

Even though Canadian fishers significantly contributed to the cod fishery crash, it is no wonder that such far-reaching implications could conjure up an extremely adversarial, racially-entrenched position on the part of any state suffering similar devastation. Fearing an analogous crash of the turbot fishery, the Canadian government persuaded the Northwest Atlantic Fisheries Organization (NAFO) to reduce by half the allowable commercial catch of turbot.[103]

Spearheaded by Spain, the European Union (EU) opposed the NAFO turbot quotas.[104] Spain, which has the largest fishing fleet in the EU, is notorious among fisheries communities for its over-aggressive fishing practices and consequently has been banned from European, Moroccan, and Namibian waters.[105] A number of negotiation attempts were made by NAFO members to determine mutually acceptable turbot quotas, but all failed because the EU demanded quotas five times greater than those proposed by Canada in order to accommodate the large Spanish and Portuguese fishing fleets.[106] Canada responded by formally prohibiting Spanish and Portuguese vessels from entering international waters around Grand Banks.[107]

Spanish fishing vessels ignored Canada's declarations and continued to fish in and around Newfoundland's Grand Banks.[108] As a result, Canadian warships chased and captured the Spanish fishing vessel "Estai," subsequently arresting the crew and impounding the vessel.[109] The Canadian government maintained that the Estai had violated a number of Canadian

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[101] *See id.* at 70.

[102] *See id.*

[103] *See* Andrew Schaefer, *1995 Canada-Spain Fishing Dispute (The Turbot War)*, 8 GEO. INT'L ENVTL. L. REV.437, 438 (1996).

[104] *See* J. Alan Beesley & Malcolm Rowe, *Why Canada Was Right in the Turbot War*, VANCOUVER SUN, May 24, 1995, at A15.

[105] *See* Schaefer, *supra* note 103, at 439.

[106] Beesley & Rowe, *supra* note 104, at A15.

[107] *Id.* Canada maintained that Spain and Portugal had already exceeded their turbot quota by that time. *Id.*

[108] Schaefer, *supra* note 103, at 440.

[109] *Id.*

Coastal Fisheries Protection Act[110] provisions regarding net mesh size and minimum length restrictions for turbot harvests.[111] Contrary to Canada's claims, however, the NAFO regulations at the time had not been violated by the Estai's crew.[112] Furthermore, UNCLOS provides that a flagship is subject only to the jurisdiction of the state whose flag it flies.[113] Thus, under international law at the time, only Spain could force the Estai to comply with Canada's domestic fisheries regulations, which of course it was not likely to do.

Amid efforts to negotiate a settlement, relations further deteriorated. After Canadian officials interfered with another Spanish fishing vessel, Spain sent two military patrol vessels to the area and began requiring Canadians traveling in Spain to carry a visa.[114] Negotiations between Canadian and EU representatives, likely coupled with the threat of force on behalf of both parties, eventually resulted in an agreement requiring, inter alia, a reduction in EU turbot quotas—albeit not nearly as reduced as those proposed by Canada—suspension of Canadian authority beyond its EEZ, an independent observer on board flag ships, and more rigid measures for enforcing management plans.[115] However, under the settlement agreement, jurisdiction over the fishing vessels still remained with the flag states.

The EU subsequently exhibited its commitment to the agreement when they ordered a Spanish fishing vessel to return to Spain after determining that the crew had been using illegal nets.[116] Other EU members, however, were skeptical about Spain's commitment to the agreement due to Spain's substantial fishing fleet and high unemployment at the time.[117] Moreover, the terms of the agreement eventually led to the Straddling Fish Stocks Conference, although it has yet to be officially ratified.[118] Thus, even though

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[110] Coastal Fisheries Protection Act, R.S.C., ch. C-33 (1985) (Can.).

[111] *Id.* at 441.

[112] Schaefer, *supra* note 103, at 441 (citing Paul Koring, *Allegations Concerning Spanish Trawler are Unfounded or Misrepresent Legal Practice, Inspector Says*, GLOBE AND MAIL (Canada), Apr. 1, 1995, at 7).

[113] UNCLOS, *supra* note 21, at art. 92(1).

[114] Schaefer, *supra* note 103, at 442.

[115] *Id.*

[116] *Id.*

[117] O'Connell, *supra* note 14, at 9. Specifically, German newspapers reflected the skepticism about Spain's commitment. With the highest number of fishers per capita in the EU and 20 percent unemployment, Spain's interest in fulfilling its obligations were low to say the least, and thus the likelihood of more conflict was high. *Id.*

[118] Schaefer, *supra* note 103, at 443; *see also* Straddling Fish Stocks Agreement, *supra* note 96.

there may be reason for "cautious optimism,"[119] coastal states remain at the mercy of flag states to enforce arguably nonbinding agreements. Traditional political avenues in dispute resolution filled the gaps that UNCLOS failed to address. The international community responded by promulgating the Straddling Fish Stocks Agreement and including within it more rigorous enforceability, thus continuing the trend toward binding dispute settlement techniques.

Given the on again, off again nature of politically-laden disputes and the potential for racially-entrenched positions regarding fisheries disputes evidenced by the Canadian example, the suitability of typically nonbinding dispute resolution decisions is questionable at best. Notwithstanding UNCLOS, it is generally accepted in international fisheries law that disputes are settled via multilateral negotiations.[120] However, negotiations about the issues relevant to the Turbot War had been ongoing for many years without settlement.[121] Overfishing in the Grand Banks region continued throughout the negotiations, thus inflicting greater damage on Canada because it was the only state that prohibited its fishing fleet from harvesting in the region.[122] Even though they were EU members, British fishers vigorously supported Canada's position in the Turbot War because it contributed to the escalation of fisheries disputes as an international political priority.[123] Enforcement of international agreements not subject to adjudication had been missing up to the point that drove Canada to take aggressive action outside of its EEZ.[124] In all likelihood, England's support of the Canadian position created enough international community pressure to move the disputants toward settlement. The end result of the Turbot War is that, by necessity, it is now accepted that fishing outside the EEZ should be governed by compulsory arbitration or

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[119] News Release, Dep't of Fisheries & Oceans, Tobin Welcomes E.U. Action Against Spanish Vessel (May 9, 1995), *at* http://www.dfo-mpo.gc.ca/communic/newsrel/1995/HQ47E.htm.

[120] Schaefer, *supra* note 103, at 446.

[121] *Id.*

[122] *Id.* (citing Alison Reiser, *Reports of ASIL Program: ASIL Observer Comments on UN Conference on Straddling and Migratory Fish Stocks*, ASIL NEWSLETTER (Am. Soc'y of Int'l Law, Wash., D.C., Nov. 1993).

[123] *An Invaluable Treaty*, OTTAWA CITIZEN, Aug. 5, 1995, at B6.

[124] Schaefer, *supra* note 103, at 446–47 (citing Benjamin V. Ferencz, *The New International Law of Fisheries: UNCLOS 1982 and Beyond*, 89 A.C.I.L. 674, 676 (1995) (book review)).

adjudication and thus binding, enforceable decisions.[125] To what extent this will inhibit further abuses by flagged vessels remains to be seen.

2. *Native American Fisheries Disputes in the United States*

Nowhere are politically- and racially-entrenched positions more clearly illustrated than by those fisheries disputes in the U.S. involving Native Americans. Thousands of hours have been spent litigating treaty rights and negotiating agreements only to return to the same issues all over again. Many Native American-federal government treaties are still in force.[126] Because nonnative expansion has encroached upon traditional tribal lands, the allocation of resources under treaties is an oft-occurring problem.[127] In the face of the ever-decreasing resources that historically form the foundation for their respective cultures, Native Americans battle against both legal and racist barriers.

Over one hundred and forty years ago, the U.S. government signed several treaties with Pacific Northwest Native American tribes.[128] Specific language in the text of the treaties guaranteed to the tribes the "'the right to take fish in common with' [white settlers] 'at all unusual and accustomed places.'"[129] This right concerned and resulted in a myriad of disputes and lawsuits over the region's numerous salmon fisheries.[130] The results of the many lawsuits are that that the tribes have property rights to their historic fishing grounds, they are insulated from state license fees, they are guaranteed one-half the harvestable fish, including those fish produced from federal and state hatcheries, and, most importantly, they are ostensibly protected from discriminatory regulation.[131]

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[125] John R. Stevenson & Bernard H. Oxman, *The Future of the United Nations Convention on the Law of the Sea*, 88 AM. J. INT'L L. 488, 498 (1994).

[126] Eric Eisenstadt, *Fish Out Of Water: Setting A Single Standard For Allocation Of Treaty Resources*, 17 AM. INDIAN L. REV. 209, 209 (1992).

[127] *Id.*

[128] Michael C. Blumm & Brett M. Swift, *The Indian Treaty Piscary Profit and Habitat Protection In The Pacific Northwest: A Property Rights Approach*, 69 U. COLO. L. REV. 407, 409 (1998).

[129] *Id.* (citing Treaty of Medicine Creek, Dec. 26, 1854, U.S.-Nisquallys-Puyallups, art. 3, 10 Stat. 1132, 1133; Treaty with the Nez Perces, June 11, 1855, U.S.-Nez Perces, art. 3, 12 Stat. 957, 958).

[130] Blumm & Swift, *supra* note 128, at 409.

[131] For property rights, see *United States v. Winans*, 198 U.S. 371, 381, 384 (1905) (stating that the tribes were entitled to a servitude, a right in land, and an easement to those areas located off the reservation). *See also* Puyallup Tribe v. Dep't of Game, 391

But for every legal decision promulgated, yet another dispute arose. Much of the political positioning in Native American fisheries disputes appears to be related to states' reluctance to commonage the fisheries with tribal governments.[132] The United States Supreme Court had validated Columbia River tribal rights under the treaties.[133] Upon remand from the Court, a district court held that Oregon and Washington must cease managing the fishery as they had done, which limited the number of salmon that made it upstream to tribal fishing grounds to few or none at all.[134] Despite the legal precedent and the nearly one hundred years of litigation, however, the disputes continued to fester and spawned continuous litigation[135] because the state governments continued to delay implementation to the detriment of the Native Americans.[136] Thus, whereas the federal government generally advanced Native American claims, state courts and their respective governments maintained positions that were "openly hostile" to the Native Americans.[137]

Notwithstanding political posturing among disputants, fisheries disputes frequently include elements of racism. Canada's singling out of Spanish fishing vessels in the Turbot War arguably can be traced back to some degree of racism towards Spanish fishers and their poor reputation for following the rules.[138] Likewise, the Columbia River salmon fishery dispute entailed deep-seeded racism as illustrated by the following passage from Washington State Supreme Court Justice Bausman:

> The premise of Indian sovereignty we reject. The treaty is not to be interpreted in that light. At no time did our ancestors, in getting to this continent, ever regard the aborigines as other than mere occupants, and incompetent occupants, of the soil .... Only that title was esteemed which came from white men .... These [treaties] were but the announcement of

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U.S. 392 (1968); Tulee v. Washington, 315 U.S. 681 (1942); Seufert Bros. Co. v. United States, 249 U.S. 194 (1919); United States v. Washington, 384 F. Supp. 312 (W.D. Wash. 1974).

[132] Charles F. Wilkinson, *To Feel The Summer in the Spring: The Treaty Fishing Rights of the Wisconsin Chippewa*, 1991 WIS. L. REV. 375, 409.

[133] *Tulee*, 315 U.S. at 685; *Seufert Bros.*, 249 U.S. at 198–99; *Winans*, 198 U.S. at 381.

[134] Sohappy v. Smith, 302 F. Supp. 899, 911 (D. Or. 1969).

[135] Weaver, *supra* note 18, at 681.

[136] FAY G. COHEN, TREATIES ON TRIAL: THE CONTINUING CONTROVERSY OVER NORTHWEST INDIAN FISHING RIGHTS 122–23 (1986).

[137] Eisenstadt, *supra* note 126, at n.73.

[138] Schaefer, *supra* note 103, at 439.

> our benevolence which, notwithstanding our frequent frailties, has been continuously displayed. Neither Rome nor sagacious Britain ever dealt more liberally with their subject races than we with these savage tribes, whom it was generally tempting and always easy to destroy, and whom we have so often permitted to squander vast areas of fertile land before our eyes.[139]

Some seventy years later, hostility, violence, and vandalism against Native American fishing gear continued,[140] some of which remains to this day.[141] Thus, even in the face of decades of legal and allegedly binding precedence, the Columbia River salmon fishery dispute persists.

Other Native American fisheries disputes have followed the same long-term litigation path in other parts of the United States.[142] In Wisconsin, local opposition to Native American fisheries rights run "bitter and deep."[143] At one time, the best selling brand of beer in Northern Wisconsin was "Treaty Beer," which was produced to raise revenue to oppose Chippewa treaty rights to fishing areas.[144] The dispute in Wisconsin instigated racial epithets, interference with Native American fishing, and even physical assault of many Native American fishers.[145] Although years of litigation has provided the legal precedence to minimize further litigation in both the Columbia River[146] and Wisconsin examples,[147] the likelihood that court decisions will "resolve the social unrest that runs so deep" is not very good.[148] Clearly, this does not bode well for binding international decisions under the auspices of the ICJ or ITLOS, neither of which provides substantial legal precedence with respect to fisheries disputes.

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[139] State v. Towessnute, 154 P. 805, 807 (Wash. 1916).

[140] H.R. REP. NO. 96-1243, pt. 2, at 26 (1980), *reprinted in* 1980 U.S.C.C.A.N. 6793, 6808.

[141] *See* United States v. Washington, 520 F.2d 676, 693 (9th Cir. 1975) (stating that "the history set forth in the Puyallup and Antoine cases, among others, make it crystal clear that it has been recalcitrance of Washington State officials (and their vocal non-Indian commercial and sports fishing allies) which produced the denial of Indian rights requiring intervention by the district court. This responsibility should neither escape notice nor be forgotten") (Burns, J., concurring); Eisenstadt, *supra* note 126, at n.73.

[142] Wilkinson, *supra* note 132, at 393–98.

[143] *Id.* at 376.

[144] *Id.*

[145] *Id.*

[146] *Id.* at 406–07.

[147] *Id.* at 404.

[148] *Id.* at 403.

Moreover, even though Native Americans proved to be staunch defenders of the Columbia River salmon, recent government funding via Senate Bill 5595, intended to address the dire situation without any long-term funding, does not allocate one cent to any of the tribes.[149] Thus, political, and perhaps racial positioning continues to sabotage any real hope of resolving the dispute, even in the face of allegedly binding legal decisions because salmon restoration lacks regulatory certainty.[150] Clearly, the political and moral positioning illustrated by these examples affected the parties' ability to effectively communicate, perhaps even instigating the disputes in the first place.

B. *Scientific Imprecision*

It is clear that science plays a significant role in contemporary fisheries disputes because much of fisheries management relies on the compilation, analyses, and exchange of scientific data. Unfortunately, the data neither provide all the answers nor even all the correct answers. Thus, using imprecise scientific foundations upon which to base management decisions may lead to future disputes if the scientific reasoning driving those decisions does not play out as interpreted.

Scientific imprecision in the context of this Note does not mean poor or faulty science (although that may well be the case in years long-since passed). Rather, scientific imprecision is intended to describe the inability to measure all relevant factors, past, present, and future, in any given fishery ecosystem—a nearly impossible task. Scientific imprecision also includes variability, both within the sampling or collecting of the data and within the approaches taken by different scientists. Consequently, what might appear to be a bumper harvest of fish one year may well turn out to be the beginning of the end,[151] as was potentially the case with the orange roughy.

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[149] William H. Rodgers, Jr., *What A Salmon Czar Might Hope For*, 74 WASH. L. REV. 511, 514 (1999).

[150] *Id.* at 516.

[151] For example, fisheries managers might use a previous year's total catch in a given fishery to determine the following year's catch quotas. The fisheries managers might make a number of assumptions, such as a 30% underreporting of actual landings, before promulgating a catch quota. If by chance the year used as the baseline for the calculation happened to be an exceptional year for whatever reasons (*e.g.*, a nutrient-rich upwelling closer to the coast than normal), the catch quota may ultimately overestimate abundance and thus drive the fishery toward over-harvest. *E.g.*, N. Carolina Fisheries Ass'n, Inc. v. Daley, 27 F. Supp. 2d 650 (E.D. Va. 1998) (discussing how fishery management plans are determined in an action in which local commercial fishers and the

Scientific imprecision frequently is the focus of many international and national fisheries disputes. In only the third case to reach ITLOS, the *Southern Bluefin Tuna Cases*, New Zealand and Australia sought adjudication against Japan for what they alleged were violations of UNCLOS Articles 64 and 116–119 regarding the conservation and management of southern bluefin tuna (SBT) stocks.[152] The parties had failed to reach agreement via negotiations regarding an experimental fishing program (EFP) and total allowable catch (TAC).[153] Although the case was far more complex than what will be addressed here, the dispute arose because there was scientific uncertainty regarding allowable catch, conservation, and sustainable yield of SBT.[154] The respective scientists could not agree upon which data were reliable. Hence, each party maintained a "my science is correct, yours is wrong" position.

ITLOS acknowledged the scientific uncertainty[155] and ordered the parties (1) to avoid aggravation of the dispute; (2) to reasonably carry out the decision; (3) to set TAC at levels last agreed upon by the disputants; (4) to refrain from an EFP unless the disputants mutually agree upon one; (5) to resume negotiations in order to reach agreement on conservation and management measures of SBT; and (6) make additional efforts to reach agreements with other states regarding conservation and management of SBT.[156] Although ITLOS provided interim measures until agreements could be made,[157] the decision merely ordered the parties to respect the existing TAC and for Japan to cease its EFP. Nothing about the scientific uncertainty was resolved, although the dispute did proceed to arbitration.[158] The arbitration panel subsequently nullified the interim measures by agreeing

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state fisheries association sued the Secretary of Commerce challenging a 1997 summer flounder quota).

[152] Southern Bluefin Tuna Cases (N.Z. v. Japan; Austl. v. Japan), 38 I.L.M. 1624, 1627–29 (1999).

[153] Although Japan averred that New Zealand and Australia failed to exhaust procedures for amicable dispute settlement under Part XV, section 1 of UNCLOS and requested a provisional measure requiring both to recommence negotiations. S. Bluefin Tuna, 38 I.L.M. at 1630, 1633.

[154] *Id.* at 1634.

[155] *Id.*

[156] *Id.* at 1635–36.

[157] *Id.* at 1635.

[158] *See id.* at 1634.

with Japan's contention that ITLOS did not have jurisdiction.[159] The parties eventually agreed to jointly fish the region for research purposes until 2003, subject to details to be determined by third-party scientific experts.[160] Japan has since used the agreement as leverage against New Zealand to induce them to lift a similar Japanese whaling ban.[161] Thus, an allegedly binding decision by ITLOS was later rejected by an arbitration panel, leaving the parties to return to square one and negotiate a settlement. Because tensions continue to fester among the parties,[162] in all likelihood, the dispute will not be resolved until science comes to some sort of consensus regarding the plight of the SBT.

In the Columbia River fisheries disputes, failure of the salmon fishery was not only attributable to, inter alia, habitat degradation, but also to the fact that scientists failed to consider simultaneously managing the ocean salmon fisheries.[163] Thus, not all the relevant data were considered when making management decisions. Moreover, failure to recognize the need for more precise science continues to be an obstacle in the Columbia River fisheries disputes. Recently, the Washington legislature in Senate Bill 5595 failed to clearly define the role of science in salmon recovery.[164] The bill spreads scientific responsibility among several technical groups.[165] Thus, there is a strong possibility that future disputants will take the " my science is correct, yours is wrong" position absent any clearly delineated scientific authority.

United States Atlantic Coast fisheries disputes also often are based on a lack of agreement over whose scientists are correct. In *Tutein v. Daley*,[166] commercial fishers sued the U.S. Secretary of Commerce,[167] challenging the validity of the Secretary's declaration that the Atlantic bluefin tuna (ABT)

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[159] *Japan to Conduct Joint Tuna Research With Australia, N.Z.*, JAPAN ECON. NEWSWIRE, Nov. 27, 2000, *available at* LEXIS, News Library, Wire Services Stories File.

[160] *Id.*

[161] Jonathan Milne, *Tuna Pact Stirs Other Tensions*, DOMINION, Dec. 26, 2000, at 2.

[162] *Id.*

[163] Weaver, *supra* note 18, at 681.

[164] Rodgers, *supra* note 149, at 517.

[165] *Id.*

[166] Tutein v. Daley, 43 F. Supp. 2d 113 (D. Mass. 1999).

[167] Under the Magnuson-Stevens Fishery Conservation and Management Act (a.k.a. the Sustainable Fisheries Act), the Secretary of Commerce has the exclusive authority to implement fishery management plans (FMP). 16 U.S.C. § 1855(d) (1994).

was overfished.[168] Among the fishers' contentions was that using stock size rather than fishing mortality rate to determine whether or not a fishery is overfished was arbitrary and capricious.[169] The court dismissed this argument for lack of subject matter jurisdiction,[170] but the upshot is that, faced with a dwindling ABT fishery, the commercial fishers tried to fight the impending reduced catch quotas by pitting one scientific view against another.

In *Associated Fisheries of Maine, Inc. v. Daley*,[171] a similar overfishing dispute regarding cod, haddock, and yellowtail flounder stocks in the northeastern U.S., an organized group of commercial fishers contended that maintaining the "status quo" would sufficiently rebuild the fisheries at issue, contrary to the Secretary's decision.[172] The court rejected the argument, holding that, inter alia, "[w]hen an agency is faced with conflicting scientific views and chooses among them," a court should defer to the agency's scientific expertise.[173] In contrast, in the *Southern Bluefin Tuna Cases* ITLOS provided interim measures, but left the final decision to the parties through continued negotiations,[174] the very process that brought them before ITLOS in the first place. Whether the U.S. approach is the better one is debatable, but at a minimum, the U.S. approach moves forward, rather than back to square one. Moreover, the U.S. approach attempts to ensure compliance by using the U.S. Coast Guard to enforce the Magnuson-Stevens Act.[175]

Irrespective of which is the correct approach, the majority of international, regional, and national fisheries legal regimes have thus far proven to be ineffective in slowing the reduction of commercial fish stocks.[176] Moreover, attempting to resolve fisheries disputes by choosing one disputant's science over another's in all likelihood will not end the dispute there. Thus, those responsible for making scientific recommendations upon

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[168] "Overfished" means that a particular fish species is being harvested at a rate or level of fishing mortality that threatens the capacity of a given fishery to provide MSY on a continuing basis. *See* 16 U.S.C. § 1802(29) (Supp. II 1996).

[169] *Tutein*, 43 F. Supp. 2d at 116.

[170] *See id.* at 125.

[171] Associated Fisheries of Maine, Inc. v. Daley, 127 F.3d 104 (1st Cir. 1997).

[172] *See Associated Fisheries*, 127 F.3d at 109–10.

[173] *Id.* at 110 (citing Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 103 (1983)).

[174] S. Bluefin Tuna (N.Z. v. Japan; Austl. v. Japan), 38 I.L.M. 1624, 1630–35 (1999).

[175] *See* 16 U.S.C. § 1826(g) (Supp. II 1996).

[176] Von Zharen, *supra* note 27, at 1.

which fisheries managers rely must be independent and composed of neutral members in order to maximize the use of current and relevant scientific information in the decision-making process.[177] Finally, the methods and results must also be subject to scrutiny by the scientific community and the public in general in order to properly determine the feasibility of fisheries agreements or dispute resolutions from both private and public perspectives.[178]

C. *Zero-Sum Gain or a Smaller Piece of the Pie for All: Fewer and Fewer Fish to Fight Over*

The right to harvest fish that do not exist means nothing. Notwithstanding the political, moral, and scientific obstacles, declines in much of the world's fisheries will inevitably create more and more fisheries disputes. Food harvested from the sea is the primary source of protein for about half the world's population.[179] Strikingly, seventy percent of the world's commercial marine fish species are either depleted or fully exploited.[180] As fewer and fewer fish are allocated to potential disputants, inflexible positioning is likely to set in. Thus, no amount of litigation or mediation or negotiation will solve future fisheries disputes when there are only a few fish over which to fight.

Nearly all of the early litigation regarding the Columbia River salmon fishery dealt with access to or allocation of the salmon among the various non-Native American groups and the tribal governments with treaty rights.[181] Very little, if any effort was directed towards the demise of the Columbia River salmon and steelhead and their respective habitats.[182] Thus, at present, most of the Columbia River salmon upon which the Native Americans relied as the foundation of their culture are either gone, on the Endangered Species list, are threatened species, or are nearing similar fates.[183]

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[177] Craik, *supra* note 25, at 572.

[178] *Id.*

[179] Von Zharen, *supra* note 27, at 5 (citing NAT'L ROUND TABLE ON THE ENVIRONMENT AND THE ECONOMY, SUSTAINABLE STRATEGIES FOR OCEANS: A CO-MANAGEMENT GUIDE 2 (1998)).

[180] Chivers, *supra* note 12.

[181] Weaver, *supra* note 18, at 678.

[182] *Id.* at 678–79.

[183] *See generally* Rodgers, *supra* note 149.

In the Wisconsin fisheries dispute, the fish species at issue were not on the edge of collapse or even close, for that matter.[184] However, because fish production was down in some Wisconsin fisheries due to pollution and habitat degradation,[185] non-Native American constituents likely blamed the Native American fishers for decreased production and also likely feared that the trend would continue downward. It is not at all implausible that the political and racial rifts between the disputants is driving this mentality, but the need to maintain the fisheries, at least at sustainable levels, also likely drives this mentality. Similarly, the experience that the Canadians had with the collapse of their cod fisheries likely drove them to their threat of force in the Turbot War. Thus, much of the veracity and passion that fueled these disputes was the obvious fear that one day there will be no more turbot, no more salmon, or no more SBT.

Because many fisheries disputes involve fish species that have collapsed or are at the brink of collapsing,[186] winners ultimately become losers and thus the result is a zero-sum gain. For example, if the commercial fishers in Associated Fisheries had won their suit against the Secretary of Commerce, groundfish quotas would have remained the same.[187] Although the fishers would have preserved their ability to maintain their level of income for the short term, in all likelihood, the critical state of the fisheries would have been hastened, potentially to a point of no return, thereby jeopardizing the fishers' livelihood for the long term. Thus, when faced with collapsing or near collapsing fisheries, those individuals making fisheries management decisions, whether in a judicial, ADR, or agency context, must be able to balance the adverse economic impacts on the fishers against the moral or legal obligation to eliminate overfishing and preserve commercial fish stocks.[188]

IV. CONCLUSION

Over the last few decades, a noticeable trend in international environmental law is movement away from a state-centered orientation of the

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[184] Wilkinson, *supra* note 132, at 376–78.

[185] *Id.* at 378.

[186] All of the disputes in this Note, except for the Wisconsin Native American dispute, involved fisheries in such a position.

[187] Associated Fisheries of Maine, Inc. v. Daley, 127 F.3d 104, 109–10 (1st Cir. 1997).

[188] This is purportedly one of the methods used by the U.S. Secretary of Commerce when determining the acceptability of FMPs. *See id.* at 108, 118.

earth's environment toward a more world-wide perspective[189] in which states are expected "to act inside the limits of their jurisdiction on behalf of the interests of mankind."[190] Thus, dispute settlement mechanisms in domestic and international environmental law should serve both private and public interests, particularly regarding resource allocation, protection, and preservation.[191]

What is clear from the Turbot War, the Native American fisheries disputes in the United States, and the *Southern Bluefin Tuna Cases* is that history tends to repeat itself. Thus, the success of any fisheries dispute resolution mechanism will be determined by three important factors.[192] First, the intensity of the political and racial positioning. Second, the status of the science from which positions are established; that is, to what extent the science is widely accepted by both the scientific community and the general public. Third, the status of the fishery at the onset of the dispute—are there fish to fight over? Future fisheries dispute resolution mechanisms must account for these factors and overcome them with strong enforcement and regulatory measures if there are to be any fish left for the future. Finally, domestic and international community pressure is imperative if there is to be any hope of enforcement without the use of force.

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[189] Craik, *supra* note 25, at 564.

[190] Alexandre Kiss, *Introduction* to EDITH BROWN WEISS, ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW: NEW CHALLENGES AND DIMENSIONS 13–14 (Edith Brown Weiss ed., 1992).

[191] Craik, *supra* note 25, at 564–65.

[192] These factors are not limited to fisheries disputes. *See* Jonathan Brock, *Mandated Mediation: A Contradiction in Terms, Lessons From Recent Attempts to Institutionalize Alternative Dispute Resolution Practices*, 2 VILL. ENVTL. L.J. 57, 59 (1991).